

VAX/VMS Install Utility Reference Manual

Order No. AA-Z417A-TE

digital
software



VAX/VMS Install Utility Reference Manual

Order Number: AA-Z417A-TE

September 1984

This document describes the Install Utility for use on VAX processors.

| | |
|-------------------------------------|-----------------------|
| Revision/Update Information: | This is a new manual. |
| Software Version: | VAX/VMS Version 4.0 |

**digital equipment corporation
maynard, massachusetts**

September 1984

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by Digital Equipment Corporation or its affiliated companies.

Copyright ©1984 by Digital Equipment Corporation

All Rights Reserved.

The postpaid READER'S COMMENTS form on the last page of this document requests the user's critical evaluation to assist in preparing future documentation.

The following are trademarks of Digital Equipment Corporation:

| | | |
|--------------|-----------|------------|
| DEC | DIBOL | UNIBUS |
| DEC/CMS | EduSystem | VAX |
| DEC/MMS | IAS | VAXcluster |
| DECnet | MASSBUS | VMS |
| DECsystem-10 | PDP | VT |
| DECSYSTEM-20 | PDT | |
| DECUS | RSTS | |
| DECwriter | RSX | |

digital

ZK-2305

This document was prepared using an in-house documentation production system. All page composition and make-up was performed by T_EX, the typesetting system developed by Donald E. Knuth at Stanford University. T_EX is a registered trademark of the American Mathematical Society.

Install Contents

1

| | |
|----------------|----------|
| PREFACE | v |
|----------------|----------|

| | |
|---------------------------------|------------|
| NEW AND CHANGED FEATURES | vii |
|---------------------------------|------------|

| | |
|---------------|--------------|
| FORMAT | INS-1 |
|---------------|--------------|

| | |
|-------------------------|--------------|
| INSTALL COMMANDS | INS-1 |
|-------------------------|--------------|

| | |
|--------------------|--------------|
| DESCRIPTION | INS-2 |
|--------------------|--------------|

| | |
|-----------------------|--------------|
| ERROR MESSAGES | INS-3 |
|-----------------------|--------------|

| | |
|-----------------|--------------|
| COMMANDS | INS-4 |
|-----------------|--------------|

| | |
|------------|--------------|
| ADD | INS-5 |
|------------|--------------|

| | |
|---------------|--------------|
| CREATE | INS-8 |
|---------------|--------------|

| | |
|---------------|---------------|
| DELETE | INS-10 |
|---------------|---------------|

| | |
|-------------|---------------|
| EXIT | INS-11 |
|-------------|---------------|

| | |
|-------------|---------------|
| HELP | INS-12 |
|-------------|---------------|

| | |
|-------------|---------------|
| LIST | INS-13 |
|-------------|---------------|

| | |
|--------------|---------------|
| PURGE | INS-17 |
|--------------|---------------|

| | |
|---------------|---------------|
| REMOVE | INS-18 |
|---------------|---------------|

| | |
|----------------|---------------|
| REPLACE | INS-19 |
|----------------|---------------|

| | |
|--------------|--|
| INDEX | |
|--------------|--|

Install Contents

EXAMPLES

| | | |
|-------|---------------------------------------|--------|
| INS-1 | Known Image Display—Brief Description | INS-13 |
| INS-2 | Known Image Display—Full Description | INS-14 |
| INS-3 | Global Sections Display | INS-15 |

TABLES

| | | |
|-------|-------------------------|-------|
| INS-1 | INSTALL Command Summary | INS-3 |
|-------|-------------------------|-------|

Preface

Intended Audience

This manual is intended for VAX/VMS system managers, operators, and system programmers.

Structure of This Document

This document is composed of three major sections.

The Format Section is an overview of INSTALL and is intended as a quick reference guide. The format summary contains the DCL command that invokes INSTALL, listing all commands and qualifiers. The usage summary describes how to invoke and exit from INSTALL, how to direct output, and any restrictions you should be aware of. The command summary lists all commands that can be used within INSTALL.

The Description Section explains how to use INSTALL.

The Command Section describes each INSTALL command. Commands appear in alphabetical order.

Associated Documents

For additional information on the topics covered in this document, refer to the *VAX/VMS DCL Dictionary* and the *Guide to VAX/VMS System Management and Daily Operations*.

Conventions Used in This Document

| Convention | Meaning |
|--|---|
| <code>RET</code> | A symbol with a one- to three-character abbreviation indicates that you press a key on the terminal, for example, <code>RET</code> . |
| <code>CTRL/x</code> | The phrase CTRL/x indicates that you must press the key labeled CTRL while you simultaneously press another key, for example, CTRL/C, CTRL/Y, CTRL/O. |
| <code>\$ SHOW TIME</code> <code>05-JUN-1985 11:55:22</code> | Command examples show all output lines or prompting characters that the system prints or displays in black letters. All user-entered commands are shown in red letters. |

Preface

| Convention | Meaning |
|-----------------------------------|---|
| \$ TYPE MYFILE.DAT . . . | Vertical series of periods, or ellipsis, mean either that not all the data that the system would display in response to the particular command is shown or that not all the data a user would enter is shown. |
| file-spec,... | Horizontal ellipsis indicates that additional parameters, values, or information can be entered. |
| [logical-name] | Square brackets indicate that the enclosed item is optional. (Square brackets are not, however, optional in the syntax of a directory name in a file specification or in the syntax of a substring specification in an assignment statement.) |
| quotation marks apostrophes | The term quotation marks is used to refer to double quotation marks ("). The term apostrophe (') is used to refer to a single quotation mark. |

New and Changed Features

The Install Utility has been extensively revised for VAX/VMS Version 4.0. Revisions include:

- A new command syntax
- New commands and qualifiers
- Updated HELP information

To establish VAX/VMS Version 4.0 INSTALL (documented here) as the default for your site, you must define the global symbol INSTALL in SYSTARTUP.COM as follows:

```
$ INSTALL :==$ INSTALL/COMMAND_MODE
```

Before proceeding, however, note that since Version 4.0 and Version 3.0 INSTALL commands are incompatible, you must modify all command procedures at your site that include V3 INSTALL commands.

If you wish to continue using the Version 3.0 INSTALL command syntax, refer to the *VAX-11 Utilities Reference Manual* in the Version 3.0 documentation set. Please be aware, however, that this syntax will not be the default after this release, nor does DIGITAL guarantee that it will receive future development. DIGITAL therefore recommends that you convert to the new command syntax.

1947-1948

1949-1950

1951-1952

1953-1954

1955-1956

1957-1958

1959-1960

1961-1962

1963-1964

1965-1966

1967-1968

1969-1970

1971-1972

1973-1974

1975-1976

1977-1978

1979-1980

1981-1982

1983-1984

1985-1986

1987-1988

1989-1990

1991-1992

1993-1994

1995-1996

1997-1998

1999-2000

2001-2002

2003-2004

2005-2006

2007-2008

2009-2010

2011-2012

2013-2014

2015-2016

2017-2018

2019-2020

2021-2022

INSTALL

You use the Install Utility (INSTALL) to enhance the performance of selected executable and shareable images by making them known to the system and assigning them appropriate attributes.

FORMAT

RUN SYS\$SYSTEM:INSTALL

Command Qualifiers

None.

Defaults

None.

Command Parameters

None.

usage summary

Invoking

To invoke the Install Utility, enter the command

```
RUN SYS$SYSTEM:INSTALL
```

at the DCL command prompt. You can then enter INSTALL commands at the INSTALL> prompt. Note that you can also use the foreign command INSTALL to perform INSTALL operations. (For information on foreign commands, refer to the *VAX/VMS DCL Dictionary*).

Exiting

To exit from the Install Utility, enter the EXIT command at the INSTALL> prompt or press CTRL/Z. Either method will return control to the DCL command level.

Directing Output

None.

Privileges/Restrictions

Use of any of the Install Utility functions (except HELP and EXIT) requires the CMKRNL privilege. The Install Utility is installed with the PRMGBL, SHMEM, and SYSGBL privileges, which are required for the use of the /SHARED qualifier.

commands

Syntax

```
INSTALL> command [file-spec] [command]
```

INSTALL Commands

ADD

```
/[NO]ACCOUNTING
/[NO]EXECUTE_ONLY
/[NO]HEADER_RESIDENT
/[NO]LOG
/[NO]OPEN
/[NO]PRIVILEGED
    [(priv-name[,...])]
/[NO]PROTECTED
/[NO]PURGE
```

INSTALL

Description

```
/[NO]SHARED
/[NO]WRITEABLE
CREATE
/[NO]ACCOUNTING
/[NO]EXECUTE_ONLY
/[NO]HEADER_RESIDENT
/[NO]LOG
/[NO]OPEN
/[NO]PRIVILEGED
    [(priv-name[,...])]
/[NO]PROTECTED
/[NO]PURGE
/[NO]SHARED
/[NO]WRITEABLE
DELETE
EXIT
HELP
LIST
    /FULL
    /GLOBAL
    /STRUCTURE
PURGE
REMOVE
REPLACE
/[NO]ACCOUNTING
/[NO]EXECUTE_ONLY
/[NO]HEADER_RESIDENT
/[NO]LOG
/[NO]OPEN
/[NO]PRIVILEGED
    [(priv-name[,...])]
/[NO]PROTECTED
/[NO]PURGE
/[NO]SHARED
/[NO]WRITEABLE
```

DESCRIPTION The Install Utility (INSTALL) is a system management tool that makes images known to the system (installs them as known file entries) in order to

- Speed activation of frequently used images
- Allow users with “normal” privileges to run images that require enhanced privileges
- Support user-written system services

The utility also provides information about installed images that helps system managers perform routine maintenance operations.

Table INS-1 summarizes INSTALL command functions.

Table INS-1 INSTALL Command Summary

| Command | Function |
|---------|--|
| ADD | Installs the specified image as a known file entry (identical to CREATE command) |
| CREATE | Installs the specified image as a known file entry (identical to ADD command) |
| DELETE | Deletes a known file entry (identical to REMOVE command) |
| EXIT | Exits from INSTALL |
| HELP | Describes (interactively) how to use INSTALL |
| LIST | Displays a description of each specified known file entry; displays global sections if the /GLOBAL qualifier is specified; displays addresses of known file entry data structures if /STRUCTURE is specified |
| PURGE | Deletes all known file entries installed without the /NOPURGE qualifier |
| REMOVE | Deletes a known file entry (identical to DELETE command) |
| REPLACE | Associates a known file entry with the latest version of the image file |

File specifications must name existing executable or shareable images. Defaults are applied as follows:

- Device and directory—SYS\$SYSTEM
- File type—EXE

Prior to actual installation, INSTALL fully resolves any logical names to their unconcealed, unambiguous forms. This action is apparent in the LIST command displays, which show mounted device logical names and all root directories.

A version number must not be specified. The highest existing version is always used. Specification of a version number produces unpredictable results (because file lookups for known images ignore version numbers).

1

Error Messages

The *VAX/VMS System Messages and Recovery Procedures Reference Manual* lists messages issued by the Install Utility, and provides explanations and suggested user actions.

INSTALL

Commands

COMMANDS

This section explains INSTALL commands and provides examples of their use.

ADD

Installs the specified image file as a known image. The ADD command is synonymous with the CREATE command.

FORMAT

ADD *file-spec*

command parameter

file-spec

Is the file specification of an image to be installed as a known image. The file specification must name an existing executable or shareable image. If you omit the device and directory specification, the default SYS\$SYSTEM is used. The default file type is EXE. A version number must not be specified.

command qualifiers

/[NO]ACCOUNTING

Enables image accounting for the image.

/[NO]EXECUTE_ONLY

Allows only execute access to the image. You may not specify this qualifier for an executable image linked with the /TRACEBACK qualifier.

/[NO]HEADER_RESIDENT

Installs the file as a known image with a permanently resident header (native mode images only). The image is made permanently open even if /OPEN is not specified.

/[NO]LOG

Lists the newly added known file entry along with any associated global sections created by the installation.

/[NO]OPEN

Installs the file as a permanently open known image.

/[NO]PRIVILEGED[=(priv-name[,...])]

Installs the file as a known image with the privileges specified (executable images only). Then, if the image is not located on the system volume, the image is made permanently open even if /OPEN is not specified.

You can specify one or more of the following privilege names:

INSTALL

ADD

| | | |
|----------|----------|----------|
| ACNT | ALLSPOOL | ALTPRI |
| BUGCHK | BYPASS | CMEXEC |
| CMKRNL | DETACH | DIAGNOSE |
| EXQUOTA | GROUP | GRPNAM |
| GRPPRV | LOG_IO | MOUNT |
| NETMBX | OPER | PFNMAP |
| PHY_IO | PRMCEB | PRMGBL |
| PRMMBX | PSWAPM | READALL |
| SECURITY | SETPRV | SHARE |
| SHMEM | SYSGBL | SYSLCKL |
| SYSNAM | SYSPRV | TMPMBX |
| VOLPRO | WORLD | |

If you specify more than one privilege name, separate them with commas and enclose the list in parentheses. If no privilege names are specified, all privileges are assigned. You can omit the parentheses when specifying a single privilege name. You may not specify this qualifier for an executable image linked with the /TRACEBACK qualifier.

/[NO]PROTECTED

Installs the file as a known image with protected code.

/[NO]PURGE

Specifies that the image can be removed by a PURGE operation; if you do not specify /PURGE, it can be removed only by a DELETE or REMOVE operation. (/NOPURGE is the default form of the qualifier.)

/[NO]SHARED

Installs the file as a shared known image and causes creation of global sections for the image. The image is made permanently open even if /OPEN is not specified.

/[NO]WRITEABLE

Installs the file as a writeable known image. If you do not also specify the /SHARED qualifier, /WRITEABLE is ignored. The /WRITEABLE qualifier is automatically negated if the /NOSHARED qualifier is specified.

EXAMPLES

1 `INSTALL> ADD /OPEN/SHARED WRKD$: [MAIN]STATSHR`

The command in this example installs the image file STATSHR as a permanently open shared known image.

INSTALL

ADD

2 `INSTALL> ADD /OPEN/PRIVILEGES=(GROUP,GRPNAM) GRPCOMM`

The command in this example installs the image file GRPCOMM as a permanently open known image with the privileges GROUP and GRPNAM.

Any process running GRPCOMM receives the GROUP and GRPNAM privileges for the duration of the execution of GRPCOMM. The full name of GRPCOMM is assumed to be SYS\$SYSTEM:GRPCOMMEXE.

3 `INSTALL> ADD /LOG GRPCOMM`

The command in this example installs the image file GRPCOMM as a known image, and then displays the newly added known file entry along with any global sections created by the installation.

INSTALL

CREATE

CREATE

Installs the specified image file as a known image. The CREATE command is synonymous with the ADD command.

FORMAT

CREATE *file-spec*

command parameter

file-spec

Is the file specification of an image to be installed as a known image. The file specification must name an existing executable or shareable image. If you omit the device and directory specification, the default SYS\$SYSTEM is used. The default file type is EXE. A version number must not be specified.

command qualifiers

/[NO]ACCOUNTING

Enables image accounting for the image.

/[NO]EXECUTE_ONLY

Allows only execute access to the image. You may not specify this qualifier for an executable image linked with the /TRACEBACK qualifier.

/[NO]HEADER_RESIDENT

Installs the file as a known image with a permanently resident header (native mode images only). The image is made permanently open even if /OPEN is not specified.

/[NO]LOG

Lists the newly created known file entry along with any associated global sections created by the installation.

/[NO]OPEN

Installs the file as a permanently open known image.

/[NO]PRIVILEGED[=(priv-name[,...])]

Installs the file as a known image with the privileges specified (executable images only). Then, if the image is not located on the system volume, the image is made permanently open even if /OPEN is not specified. You may not specify this qualifier for an executable image linked with the /TRACEBACK qualifier.

/[NO]PROTECTED

Installs the file as a known image with protected code.

/[NO]PURGE

Specifies that the image can be removed by a PURGE operation; if you do not specify /PURGE, it can be removed only by a DELETE or REMOVE operation. (/NOPURGE is the default form of the qualifier.)

INSTALL CREATE

`/[NO]SHARED`

Installs the file as a shared known image and causes creation of global sections for the image. The image is made permanently open even if `/OPEN` is not specified.

`/[NO]WRITEABLE`

Installs the file as a writeable known image. If you do not also specify the `/SHARED` qualifier, `/WRITEABLE` is ignored. The `/WRITEABLE` qualifier is automatically negated if the `/NOSHARED` qualifier is specified.

EXAMPLES

1 `INSTALL> CREATE /OPEN/SHARED WRKD$: [MAIN]STATSHR`

The command in this example installs the image file `STATSHR` as a permanently open shared known image.

2 `INSTALL> CREATE /OPEN/PRIVILEGES=(GROUP,GRPNAM) GRPCOMM`

The command in this example installs the image file `GRPCOMM` as a permanently open known image with the privileges `GROUP` and `GRPNAM`.

Any process running `GRPCOMM` receives the `GROUP` and `GRPNAM` privileges for the duration of the execution of `GRPCOMM`. The full name of `GRPCOMM` is assumed to be `SYS$SYSTEM:GRPCOMM.EXE`.

3 `INSTALL> CREATE /LOG GRPCOMM`

The command in this example installs the image file `GRPCOMM` as a known image, and then displays the newly created known file entry along with any global sections created by the installation.

INSTALL

DELETE

DELETE

Deletes a known image. The DELETE command is identical to the REMOVE command.

FORMAT

DELETE *file-spec*

command parameter

file-spec

Is the file specification of an image installed as a known image.

command qualifiers

None.

DESCRIPTION

The DELETE command is used to delete an entry from the known image file list. The image's entry on the known file list and any global sections created for the image are deleted. The image itself (that is, the image file) remains unaffected. Writeable global sections are written back to disk upon their removal as known images.

If a process is accessing global sections when the DELETE command is issued, the global sections are deleted only after the operation initiated by the process completes. However, once the command is issued, no additional processes can access the global sections, since they are "marked for deletion."

EXAMPLE

INSTALL>DELETE WRKD\$: [MAIN]STATSHR

The command in this example deletes the entry for the image STATSHR from the known file list.

EXIT

Terminates **INSTALL** and returns control to the DCL command level.
You can also exit from **INSTALL** by pressing CTRL/Z.

FORMAT

EXIT

command parameters

None.

command qualifiers

None.

EXAMPLE

INSTALL> EXIT

The **EXIT** command in this example terminates **INSTALL** and returns control to the DCL command level.

INSTALL

HELP

HELP

Interactively displays information about how to use INSTALL.

FORMAT

HELP [*command*]

command parameter

command

Specifies the name of a command for which help information is to be displayed. If you omit a command name, a list of commands is displayed, and you are prompted for a command name.

EXAMPLES

1 INSTALL> **HELP**

The command in this example displays a list of INSTALL topics and a Topic? prompt. Any topic from the list can be entered at the prompt.

2 INSTALL> **HELP LIST**
LIST

For display of a one-line description of the specified known image, or if no file is specified, then for all known images. Use with /FULL to obtain a multiline description.

Format: LIST [file-spec] /qualifier

| QUALIFIER COMBINATION | BEHAVIOR |
|-----------------------|---|
| LIST [file-spec] | List the known file entry for file-spec |
| LIST | List all entries |

Additional information available:

Qualifiers
/FULL /GLOBAL /STRUCTURE

The command in this example displays help information on the LIST command.

LIST

Displays a description of each specified known image or (if no file is specified) all known images. If the /GLOBAL qualifier is specified, global sections are displayed.

FORMAT

LIST [*file-spec*]

command parameter

file-spec

Is the file specification of an image installed as a known image. If you omit the file specification, INSTALL displays all known file entries.

command qualifiers

/FULL

Displays a multiline description of the specified known image.

/GLOBAL

Lists global sections for any specified shared image. If you omit the file specification, all global sections are displayed.

/STRUCTURE

Lists addresses of known file entry data structures.

DESCRIPTION

You can use the LIST command with the /FULL qualifier to display information that is useful in "tuning" the known file database. For example, a high entry access count for an image may indicate that system performance could benefit if the image were installed /OPEN. Similarly, high entry access counts for an image may indicate that installing the image /SHARED—that is, with global sections—could enhance performance.

EXAMPLES

1 INSTALL> LIST

The command in this example displays a single-line description of all known images, as shown in Example INS-1.

Example INS-1 Known Image Display—Brief Description

```
DISK$VAXVMSRL4:<SYSO.SYSEXE>.EXE
BLISS32;2 ① Open ② Shar
CDU;4      Open      Priv
COPY;4     Open      Shar
DCL;2      Open      Shar      Noexe
MOUNTSHR;6 Open      Shar      Prot
SYSGTMSG;1
```


INSTALL LIST

- ❶ File specification of known image.
- ❷ Attribute of known image, as follows:

| Attribute | Meaning |
|-----------|--|
| ACNT | Image accounting is enabled for the image |
| CMODE | Image is compatibility mode |
| HDR | Image header is permanently resident |
| LNKBL | Image is not executable; it is a shareable (linkable) image |
| NOPURG | Image cannot be removed by a PURGE operation; it can only be removed by a DELETE or REMOVE operation |
| OPEN | Image is permanently open |
| PROT | Image contains protected code |
| PRV | Image has privileges |
| SHAR | Image is shared |
| SHM | Image has global sections installed in shared memory |
| WRT | Image is writeable |
| XONLY | Only execute access to image is allowed |

❷ INSTALL> LIST/FULL LOGINOUT

The command in this example displays a multiline description of the known image LOGINOUT, as shown in Example INS-2.

Example INS-2 Known Image Display—Full Description

```
DISK$VAXVMSRL4:<SYSO.SYSEXE>.EXE
LOGINOUT;3      Open Hdr   Shar Priv
Entry access count   = 44 ❶
Current / Maximum shared = 3 / 5 ❷
Global section count   = 2 ❸
Privileges = CMKRNL SYSNAM TMPMBX EXQUOTA SYSPRV ❹
```

- ❶ Number of times known file entry has been accessed since it became known.
- ❷ The first number indicates the current count of concurrent accesses of the known file. The second number indicates the highest count of concurrent accesses of the file since it became known (installed). This number appears only if the image is installed with the /SHARED qualifier.
- ❸ Number of global sections created for the known file; appears only if the image is installed with the /SHARED qualifier.
- ❹ Translation of the privilege mask; appears only if the image is installed with privileges.

❸ INSTALL> LIST /GLOBAL

The command in this example displays all global sections for shared images, as shown in Example INS-3.

Example INS-3 Global Sections Display

```

                                System Global Sections ①
    ②      ③      ④      ⑤ ⑥      ⑦
LBRSHR_004      (01000001) WRT      PRM SYS      Pagcnt/Refcnt=1/0
CRFSHR_003      (010003E8) WRT      PRM SYS      Pagcnt/Refcnt=1/1
.
.
.
27 Global Sections Used, 828/3268 Global Pages Used/Unused ⑧
      Global Sections in Multiport Memory "SHM" ⑨
VMSRTL_001      (010003FC)      PRM SYS      Creator Port=0 ⑩
      Basepfn/Pagcnt=00000000/7 ⑪
      Port 0 PTE Refcnt=35 ⑫
.
.
.
659 Global Pages Used, 1329 Global Pages Unused
15 Global Sections Used, 17 Global Sections Unused ⑬

```

- ① Display of global sections in local memory.
- ② Name of global section.
- ③ Version number (in hexadecimal) of global section; for shareable images only, the high-order byte (01 in CRFSHR_003) contains major identification, and low-order bytes (00038E in CRFSHR_003) contain minor identification determined by the programmer at link time. For executable images, the number is a known unique value determined by the system.
- ④ The global section is writeable.
- ⑤ The global section is permanent; TMP indicates a temporary global section
- ⑥ The global section is system-wide; GRP and a group number indicate a group-wide section.
- ⑦ Number of pages in the section and number of page table entries currently mapped to this global section.
- ⑧ Number of global sections created, number of global pages used, and number of global pages unused in local memory. Note that, because of arithmetic rounding, the number of global sections created will sometimes be greater than the SYSGEN parameter GBLSECTIONS. When the size of the system header is being computed, the values of the GBLSECTIONS and SYSMWCNT parameters are combined with the size of the fixed part of the process header. The result is rounded up to the next page boundary. This rounding process sometimes adds space to the global section table, depending on the values of the two SYSGEN parameters and the amount of system paging that preceded the running of INSTALL to create all of the global sections.
- ⑨ Display of global sections in shared multiport memory unit named SHM by the system manager; one such display appears for each attached multiport memory unit.
- ⑩ Number of the port from which the global section was created.
- ⑪ Base page frame number (in hexadecimal) and number of pages in the section.

INSTALL LIST

- ⑫ Page table entry (PTE) reference count; one appears for each port where the reference count is not 0.
- ⑬ Number of global pages used, number of global pages unused, number of global sections used, and number of global sections unused in shared memory.

PURGE

Deletes all known file entries for images installed without the /NOPURGE qualifier.

FORMAT

PURGE

command parameters

None.

command qualifiers

None.

DESCRIPTION

If a process is accessing global sections when the PURGE command is issued, the global sections are deleted only after the operation initiated by the process completes. However, once the command is issued, no additional processes can access the global sections, since they are "marked for deletion."

EXAMPLE

INSTALL>PURGE

The command in this example deletes all images except those installed with the /NOPURGE qualifier. The images themselves (that is, the image files) remain unaffected. Writeable global sections are written back to disk upon their removal as known images.

INSTALL

REMOVE

REMOVE

Removes an entry from the known image file list. The REMOVE command is identical to the DELETE command.

FORMAT

REMOVE *file-spec*

command parameter

file-spec

Is the file specification of the known image file entry.

command qualifiers

None.

DESCRIPTION

The REMOVE command is used to delete an entry that appears in the known image file list. The image's entry on the known file list and any global sections for the image are deleted. The image itself (that is, the image file) remains unaffected. Writeable global sections are written back to disk upon their removal as known images.

If a process is accessing global sections when the REMOVE command is issued, the global sections are deleted only after the operation initiated by the process completes. However, once the command is issued, no additional processes can access the global sections, since they are "marked for deletion."

EXAMPLE

INSTALL> REMOVE GRPCOMM

The command in this example deletes the entry for the known image GRPCOMM from the known image file list.

REPLACE

Associates a known image with the latest version of the image file.

FORMAT

REPLACE *file-spec*

command parameter

file-spec

Is the file specification of an image installed as a known image.

command qualifiers

/[NO]ACCOUNTING

Enables image accounting for the image.

/[NO]EXECUTE_ONLY

Allows only execute access to the image. You may not specify this qualifier for an executable image linked with the /TRACEBACK qualifier.

/[NO]HEADER_RESIDENT

Installs the file as a known image with a permanently resident header (native mode images only). The image is made permanently open even if /OPEN is not specified.

/[NO]LOG

Lists the newly created known file entry along with any associated global sections created by the installation.

/[NO]OPEN

Installs the file as a permanently open known image.

/[NO]PRIVILEGED[=(priv-name[,...])]

Installs the file as a known image with the privileges specified (executable images only). Then, if the image is not located on the system volume, the image is made permanently open even if /OPEN is not specified. You may not specify this qualifier for an executable image linked with the /TRACEBACK qualifier.

/[NO]PROTECTED

Installs the file as a known image with protected code.

/[NO]PURGE

Specifies that the image can be removed by a PURGE operation; if you do not specify /PURGE, it can be removed only by a DELETE or REMOVE operation. (/NOPURGE is the default form of the qualifier.)

/[NO]SHARED

Installs the file as a shared known image and causes creation of global sections for the image. The image is made permanently open even if /OPEN is not specified.

INSTALL

REPLACE

/[NO]WRITEABLE

Installs the file as a writeable known image. If you do not also specify the /SHARED qualifier, /WRITEABLE is ignored. The /WRITEABLE qualifier is automatically negated if the /NOSHARED qualifier is specified.

DESCRIPTION

You can use the REPLACE command to alter the default attributes of the known image being replaced. To alter these attributes, you specify one or more of the same qualifiers used with the ADD and CREATE commands or their negative form. If you specify no qualifiers, the new image retains the same attributes as the old one. If the old image was installed with the /SHARED qualifier, the global sections are recreated, though probably with new identifiers.

If a process is accessing global sections when the REPLACE command is issued, the global sections are deleted only after the operation initiated by the process completes. However, once the command is issued, no additional processes can access the global sections, since they are "marked for deletion."

EXAMPLE

INSTALL>

The command in this example replaces the known image GRPCOMM with the latest version of the image, while enabling image accounting and removing the OPEN attribute for this version.

The full name of the file specification is assumed to be SYS\$SYSTEM:GRPCOMM.EXE.

Index

A

ADD command • INS-5

C

Command summary • INS-2

CREATE command • INS-8

D

DELETE command • INS-10

Directing output of INSTALL • INS-1

E

EXIT command • INS-11

Exiting from INSTALL • INS-1

H

HELP command • INS-12

I

Invoking INSTALL • INS-1

L

LIST command • INS-13

P

PURGE command • INS-17

R

REMOVE command • INS-18

REPLACE command • INS-19

Restrictions of INSTALL • INS-1

READER'S COMMENTS

Note: This form is for document comments only. DIGITAL will use comments submitted on this form at the company's discretion. If you require a written reply and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form.

Did you find this manual understandable, usable, and well organized? Please make suggestions for improvement.

Did you find errors in this manual? If so, specify the error and the page number.

Please indicate the type of user/reader that you most nearly represent:

- ☐ Assembly language programmer
- ☐ Higher-level language programmer
- ☐ Occasional programmer (experienced)
- ☐ User with little programming experience
- ☐ Student programmer
- ☐ Other (please specify) _____

Name _____ Date _____

Organization _____

Street _____

City _____ State _____ Zip Code _____
or Country

— — Do Not Tear - Fold Here and Tape — — — — —

digital



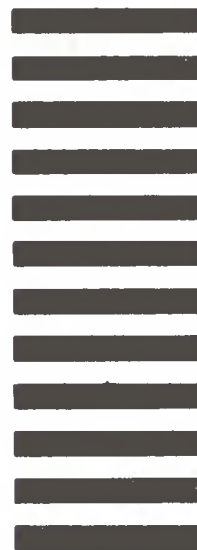
No Postage
Necessary
if Mailed in the
United States

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO.33 MAYNARD MASS.

POSTAGE WILL BE PAID BY ADDRESSEE

SSG PUBLICATIONS ZK1-3/J35
DIGITAL EQUIPMENT CORPORATION
110 SPIT BROOK ROAD
NASHUA, NEW HAMPSHIRE 03062-2698



— — Do Not Tear - Fold Here — — — — —

Cut Along Dotted Line